

PATENT

Attorney Docket No: AND-1001-DIV2

Claim Listing

This listing of claims will replace all previous versions, and listing of claims in the application.

1-14 (Cancelled)

15. (Presently Amended) A column device according to claim 19 wherein said artificial antigen presenting cell comprises:

- a) a liposome comprising a lipid bilayer comprised of neutral phospholipids and cholesterol;
- b) at least one GM-1 ganglioside molecule disposed in the lipid bilayer;
- c) a cholera toxin B subunit bound to a GM-1 ganglioside molecule ;
- d) an MHC:antigen component wherein said [MHCJJ:antigen] MHC:antigen component is bound to the cholera toxin B subunit; and
- e) an accessory molecule that can stabilize an interaction between a T cell receptor and the antigen-loaded MHC component.

16. (Previously presented) A column device of claim 19 wherein said multiplicity of compartments are positioned in relation to one another in series, said compartments having a channel interconnecting adjacent compartments, said channels further having a means to isolate said compartments from one another, said compartments further having at least one entrance and at least one exit ports for receiving or expelling, respectively, a flowable medium, said ports further having a means to close said ports to impede said flowable medium.

17. (Original) A column device according to claim 16 wherein at least one of said compartments comprises solid supports capable of binding and immobilizing an artificial APC or alternatively capable of binding directly MHC:antigen:functional molecule complexes.

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18. (Original) A column device according to claim 17 wherein binding and immobilizing of an artificial APC is by a solid support capable of binding an irrelevant molecule.

19. (Presently Amended) A column device comprising:

- a) a chamber comprising a multiplicity of compartments;
- b) in at least one of said compartments a solid support capable of binding an artificial antigen presenting cell comprising at least one GM ganglioside molecule and at least one cholera toxin B subunit; and
- c) in at least one of said compartments [either] an MHC antigen: functional molecule complex [or] and an artificial antigen presenting cell.

20. (Presently Amended) A column device according to claim 15 wherein said accessory molecule is selected from the group consisting of LFA-1, CD11a/18, CD54(ICAM-1), CD106(VCAM), CD49d/29(VLA-4) and antibodies or fragments thereof to that bind to ligands for each of LFA-1, CD11a/18, CD54(ICAM-1), CD106(VCAM), and CD49d/29(VLA-4).